FOR YOUR INFORMATION...

City of Taylorsville
Community Development Department
2600 West Taylorsville Boulevard
Taylorsville, Utah 84118 (801) 963-5400

City of Taylorsville Information Form

B-4

ELECTRICAL SERVICE

Electrical Service Upgrades

It is strongly recommended that a licensed electrical contractor be hired for all electrical service installations, upgrades, repairs and modifications. Using a licensed contractor will help to ensure that the work performed will meet minimum code standards and reduce the risk of injury to you or others, as well as the possibility of damage to property that may result from faulty electrical work. Also, using a licensed electrical contractor will generally alleviate possible delays in the permit review and inspection process.

Overview:

The City of Taylorsville requires a permit for the installation of new electrical services or upgrades to existing electrical services. Building permits issued for electrical service work only are also called "sub-permits". This information from summarizes City of Taylorsville policy, electrical code requirements, and Utah Power & Light's recommended practices for installation of electrical services for both residential and commercial buildings.

Application Process:

When applying for a permit, the City Permit Technician must ascertain the nature and scope of work associated with changing, repairing or modifying your electrical service. Please be prepared to provide detailed information describing the electrical work to be performed. The following information describes the City of Taylorsville's application requirements and step-by-step process for obtaining a permit for electrical service work:

Step 1. **Submit application.** Applicant must submit the following information to the Building Department:

- ❑ **Completed building permit application available from the City of Taylorsville.** The building permit application is a multi-part carbonless form that must be completed and signed by the applicant before the permit can be issued.
- ❑ **Description of Work.** The applicant must provide a brief description of the work to be performed and state service amperage on the building permit application. Please note that the minimum amperage allowed for a single-family dwelling is 100 amps as required by the 2003 National Electrical Code (NEC), Article 225-39C.
- ❑ **Name and contractor's license number of the individual performing electrical work.** The 2003 NEC Article 90-4 requires that a licensed contractor perform all electrical work on multi-family residential dwellings (i.e. a building with more than one residential unit), commercial buildings, and on all other non-residential structures. *For electrical work on single-family dwellings this information is not required if the electrical work is to be performed by the owner of the residence. However, it is highly recommended that you have a licensed electrical contractor perform all electrical service work for your own personal safety and for the security of your property.*
- ❑ **Electrical grounding detail – 2 copies.** Grounding is critical when changing, modifying or altering your electrical service and must comply with Article 250 of the 2003 National Electrical Code. Grounding sources must meet the following criteria:
  - ☐ Metal water pipe grounded within 5 feet of entry into the structure. In addition to this primary ground, a supplemental ground rod at least 8 feet in length must be installed.
  - ☐ If a suitable metal water pipe is not available, metal piping in the interior of the project must be bonded to the electrical service with two 8-foot ground rods installed at a minimum distance of 6 feet apart.
  - ☐ Other sources of grounding compliant with NEC Article 250 may be used, subject to approval of the Building Official.
- ❑ **Multi-family dwellings, commercial buildings, and for all other non-residential structures.** Please submit the following required information – 2 copies:
  - ☐ Submit a one-line diagram showing wire sizing, conduit sizing, grounding method, the size of the service, and the over-current protection.
  - ☐ A licensed electrical engineer is required to design and stamp all plans for multi-family, commercial, and non-residential projects. Please show load calculations justifying the design and de-rating method.
  - ☐ Show the size of the electrical service (i.e. amount of amperage) on the plans.

Step 2. **Application review.** The Building Official will review the application and check it for compliance with applicable building codes. If the Building Official determines that the plans sufficiently meet the minimum requirements of the building code, the Building Official will "stamp" the drawings and approve the permit. If corrections are required, the application will be returned to the applicant to make the appropriate corrections. It is the applicant's responsibility to correct and resubmit the application.

Step 3. **Pickup building permit.** Following approval from the Building Official, the permit will be available to the applicant for issuance from the Building Department. The applicant must pay the total permit fee before the permit can be issued or begin any work (see below for a summary of electrical permit fees).

Note: You are required to have an inspection after the new panel is in place but before the meter is set.

Building Permit Fees:

Building permit fees are established by ordinance of the Taylorsville City Council and in accordance with Utah State law. Fees are assessed by the City Building Official and based on "building valuation data" as per the 2000 International Building Code (IBC) and specified in the Table 1A of the 1997 Uniform Building Code (UBC).

- ❑ **Plan review fees** (assessed only on large-scale projects that require detailed construction plans):
  - ☐ Commercial construction — 65.00% of building permit fee
  - ☐ Residential construction — 40.00% of building permit fee
- ❑ **State surcharge** (assessed on all building permits): — 1.00% of building permit fee
- ❑ **Sub-permit fee** (for electrical service work only):
  - ☐ Base fee for any sub-permit — $ 17.00
  - ☐ Electrical fees (in addition to base fee):
    - ► For each new or modified circuit — $ 5.00
    - ► Service change or power to panel (1 meter) — $ 40.00
    - ► Each additional meter on the same inspection — $ 10.00
    - ► Temporary power (each meter base) — $ 40.00

Coordination with Utah Power:

Please be advised that the City does not coordinate with Utah Power & Light (UP&L) the temporary interruption of power for your project. It is the responsibility of the applicant to coordinate the temporary disconnection and reconnection of power by calling Utah Power & Light Customer Service at 1 (888) 221-7070.

Zoning Restrictions:

It is a violation of Title 13 in the City of Taylorsville Zoning ordinance to have multiple electrical meters on a single-family dwelling in most areas of the City. Installation of additional meters on an existing residence will require prior written approval from the Planning Department. If approved, an additional fee will be assessed for each additional electrical meter to be installed.

Electrical Tables:

The following reference tables are intended to help determine proper electrical grounding and conductor sizes for your project. If you have any questions regarding the information on either table, please contact the Taylorsville Building Official or a licensed electrician.

Grounding Electrode Conductor for Alternating-Current Systems.

Size of largest ungrounded service-entrance conductor or equivalent area for Parallel Conductors (table also applies to the derived conductors of separately derived ac systems).		**Size of grounding electrode conductor (AWG/kcmil).**	
Copper	***Aluminum or Copper-clad Aluminum***	***Copper***	***Aluminum or Copper-clad Aluminum*** *See installation restrictions in 250.64(A)*
2 or smaller	*1/0 or smaller*	*8*	*6*
1 or 1/0	*2/0 or 3/0*	*6*	*4*
2/0 or 3/0	*4/0 or 250*	*4*	*2*
Over 3/0 through 350	*Over 250 through 500*	*2*	*1/0*
Over 350 through 600	*Over 500 through 900*	*1/0*	*3/0*
Over 600 through 1100	*Over 900 through 1750*	*2/0*	*4/0*
Over 1100	*Over 1750*	*3/0*	*250*

Note 1: Where multiple sets of service-entrance conductors are used as permitted in 130.40, exception No. 2, the equivalent size of the largest service-entrance conductor shall be determined by the largest sum of the areas of the corresponding conductors of each set.

Note 2: Where there are no service-entrance conductors, the grounding electrode conductor size shall be determined by the equivalent size of the largest service-entrance conductor required for the load to be served.

Conductor Types and Sizes for 120/240/-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders.

Conductor (AWG or kcmil)		
Copper	***Aluminum or Copper-clad Aluminum***	***Service or Feeder Rating (Amperes)***
4	*2*	*100*
3	*1*	*110*
2	*1/0*	*125*
1	*2/0*	*150*
1/0	*3/0*	*175*
2/0	*4/0*	*200*
3/0	*250*	*225*
4/0	*300*	*250*

250	*350*	*300*
350	*500*	*350*
400	*600*	*400*